

(c) growing said flax plant cell into a mature flax plant capable of setting seed

wherein said nucleic acid sequence of interest is expressed in the seed under the control of said seed-preferred promoter.

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2 (amended). The method according to claim 1 wherein at least one expression characteristic conferred by said seed-preferred promoter to its native nucleic acid sequence is conferred to said non-native nucleic acid sequence.

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4. (amended) The method according to claim 1 wherein said flax seed-preferred promoter is selected from the group of promoters consisting of oleosin promoters, 2S storage protein promoters and legumin-like seed-storage protein promoters.

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5. (amended) The method according to claim 1 wherein said flax seed-preferred promoter comprises:

- (a) the nucleic acid sequence as shown in Figure 4 (SEQ.ID.NO.:8) wherein T can also be U;
- (b) a nucleic acid sequence that is complementary to the nucleic acid sequence of (a);
- (c) a nucleic acid sequence that has substantial sequence homology to the nucleic acid sequence of (a) or (b);
- (d) a nucleic acid sequence that is an analog of the nucleic acid sequence of (a), (b) or (c); or
- (e) a nucleic acid sequence that hybridizes to the nucleic acid sequence of (a), (b), (c) or (d) under stringent hybridization conditions.

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7. (amended) Transgenic flax seed prepared according to a method comprising:

(a) preparing a chimeric nucleic acid construct comprising in the 5' to 3' direction of transcription as operably linked components:

- (1) a seed-preferred promoter obtained from flax; and
- (2) a nucleic acid sequence of interest wherein said nucleic acid of interest is non-native to said seed-preferred promoter;

(b) introducing said chimeric nucleic acid construct into a flax plant cell; and

(c) growing said flax plant cell into a mature flax plant capable of setting seed

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wherein said nucleic acid sequence of interest is expressed in the seed under the control of said seed-preferred promoter.

8. (amended) Transgenic flax seed according to claim 7 wherein at least one expression characteristic conferred by said seed-preferred promoter to its native nucleic acid sequence is conferred to said non-native nucleic acid sequence.

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10. (amended) Transgenic flax seed according to claim 8 wherein said seed-preferred promoter is a seed storage protein promoter, an oleosin promoter, a 2S storage protein promoter or a legumin-like seed-storage protein promoter.

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11. (amended) Transgenic flax seed according to claim 8 wherein said seed-preferred promoter comprises:

- (a) the nucleic acid sequence as shown in Figure 4 (SEQ.ID.NO.:8) wherein T can also be U;
- (b) a nucleic acid sequence that is complementary to the nucleic acid sequence of (a);
- (c) a nucleic acid sequence that has substantial sequence homology to the nucleic acid sequence of (a) or (b);

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- (d) a nucleic acid sequence that is an analog of the nucleic acid sequence of (a), (b) or (c); or
- (e) a nucleic acid sequence that hybridizes to the nucleic acid sequence of (a), (b), (c) or (d) under stringent hybridization conditions.

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13. (amended) Transgenic flax plants capable of setting seed prepared by a method a method comprising:

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- (a) preparing a chimeric nucleic acid construct comprising in the 5' to 3' direction of transcription as operably linked components:
  - (1) a seed-preferred promoter obtained from flax; and
  - (2) a nucleic acid sequence of interest wherein said nucleic acid of interest is non-native to said seed-preferred promoter;
- (b) introducing said chimeric nucleic acid construct into a flax plant cell; and
- (c) growing said flax plant cell into a mature flax plant capable of setting seed

wherein said nucleic acid sequence of interest is expressed in the seed under the control of said seed-preferred promoter.

14. (amended) An isolated nucleic acid molecule capable of directing seed-preferred expression in a plant comprising:

- (a) the nucleic acid sequence as shown in Figure 4 (SEQ.ID.NO.:8) wherein T can also be U;
- (b) the nucleic acid sequence that is complementary to the nucleic acid sequence of (a);
- (c) a nucleic acid sequence that has substantial sequence homology to the nucleic acid sequence of (a) or (b); or

- (d) a nucleic acid sequence that is an analog of the nucleic acid sequence of (a), (b) or (c); or
- (e) a nucleic acid sequence that hybridizes to the nucleic acid sequence of (a), (b), (c) or (d) under stringent hybridization conditions.

15. (amended) An isolated chimeric nucleic acid molecule comprising:

- (a) a first nucleic acid sequence comprising a seed-preferred promoter obtained from flax which comprises:
  - (1) the nucleic acid sequence as shown in Figure 4 (SEQ.ID.NO.:8) wherein T can also be U;
  - (2) a nucleic acid sequence that hybridizes to the nucleic acid sequence of (a)(1) under stringent hybridization conditions;
  - (3) a nucleic acid sequence that is complementary to the nucleic acid sequence of (a)(1) or (a)(2); or
  - (4) a nucleic acid sequence that has substantial sequence homology to the nucleic acid sequence of (a)(1); (a)(2) or (a)(3); and
- (b) a second nucleic acid sequence non-native to said flax seed-preferred promoter.

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16. (amended) A method for the expression of a nucleic acid sequence of interest in a plant seed comprising:

- (a) introducing the chimeric nucleic acid molecule according to claim 15 into a plant cell; and
- (b) growing said plant cell into a mature plant capable of setting seed,

wherein the second nucleic acid sequence is expressed in the seed under the control of the seed-preferred promoter.

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22 (amended). A recombinant expression vector comprising the nucleic acid sequence according to claim 14.

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23. (amended) A recombinant expression vector comprising the nucleic acid sequence according to claim 15.

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